Test Report: DTP-20X-E

DALI-2 Touch Panel (Push Button)

■ DESIGN VERIFY TEST

Input Function Test
Control Function Test
Component Stress Test

■ SAFETY & E.M.C. TEST

Safety Test
E.M.C. Test

■ RELIABILITY TEST

ENVIRONMENT TEST

■ DESIGN VERIFY TEST

INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	INPUT VOLTAGE	9.5VDC~22.5VDC	I/P:9.5VDC~22.5 VDC Ta:25℃	TEST: OK
2	CURRENT CONSUMPTION	＜4mA	I/P：22.5VDC I/P：9.5 VDC Ta：25℃	I =2.97mA/ 22.5VDC I =2.28mA/ 9.5VDC

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	DALI STANDARD	IEC62386-101、103、301、332	I/P： TESTING Ta：25℃	TEST: OK
2	BUTTON EVENT	Short click, Double click, Long press	I/P：16 VDC Ta：25℃	TEST: OK
3	BACKLIGHT	Three adjustable levels: high brightness, low brightness, and of	I/P：16 VDC Ta：25℃	TEST: OK
4	VOLUME	Optional to turn on or off	I/P：16 VDC Ta：25℃	TEST: OK

COMPONENT STRESS TEST

<table>
<tr><th>NO</th><th>TEST ITEM</th><th>SPECIFICATION</th><th>TEST CONDITION</th><th>RESULT</th></tr>
<tr><td>1</td><td>Transistor</td><td>Q3 Rated:
60V/3A</td><td>I/P: High-Line =22.5VDC
O/P: (1)DAIL POWER ON/OFF
(2) DAIL POWER CONTINUE
Ta:25℃</td><td>
(1)21V
(2)21V</td></tr>
<tr><td>2</td><td>Control IC Voltage Test</td><td>AUX IC U6 Rated
-0.3V~44V

MCU IC U5 Rated
1.7V~3.6 V</td><td>I/P: High-Line =22.5VDC
O/P: (1)DAIL POWER ON/OFF
(2) DAIL POWER CONTINUE
Ta:25℃</td><td>U6
(1) 20.1V
(2) 20.3V

U5
<table>
<tr><th>TEST CONDITION</th><th>Level</th><th>Ripple</th><th>Spike</th></tr>
<tr><td>(1) DAIL POWER ON/OFF</td><td>3.268</td><td>0.318%</td><td>1.06%</td></tr>
<tr><td>(2) DAIL POWER CONTINUE</td><td>3.267</td><td>0.265%</td><td>1.18%</td></tr>
</table>
</td></tr>
</table>

■ SAFETY& E.M.C. TEST

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	**WITHSTAND VOLTAGE**	I/P-CASE: 1.5 KVAC/min	I/P-CASE: 1.8 KVAC/min	I/P-CASE: 0.068mA

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	CONDUCTION	EN55015	I/P： 230 VAC/50HZ O/P：FULL LOAD Ta：25℃	PASS Test by certified Lab
2	RADIATION	EN55015	I/P： 230 VAC/50HZ O/P：FULL LOAD Ta：25℃	PASS Test by certified Lab
3	E.S.D	EN61000-4-2 AIR：8KV / Contact：4KV	I/P： 230 VAC/50HZ O/P：FULL LOAD Ta：25℃	CRITERIA A
4	Test by certified Lab & Test Report Prepare Any contradictions of the test results, please refer to the latest EMC test report			

■ RELIABILITY TEST

ENVIRONMENT TEST

<table>
<tr><th>NO</th><th>TEST ITEM</th><th>SPECIFICATION</th><th>TEST CONDITION</th><th>RESULT</th></tr>
<tr><td>1</td><td>TEMPERATURE RISE TEST</td><td colspan="3">MODEL : DTP-203-E
1. ROOM AMBIENT BURN-IN : 2 HRS
I/P : 230VAC O/P : FULL LOAD Ta=33.7 ℃
2. HIGH AMBIENT BURN-IN : 2 HRS
I/P : 230VAC O/P : FULL LOAD Ta=56.4 ℃
<table>
<tr><th>NO</th><th>Position</th><th>ROOM AMBIENT Ta=33.7 ℃</th><th>HIGH AMBIENT Ta=56.4 ℃</th></tr>
<tr><td>1</td><td>U5</td><td>32.1℃</td><td>57.6℃</td></tr>
<tr><td>2</td><td>Q1</td><td>32.0℃</td><td>57.6℃</td></tr>
<tr><td>3</td><td>Q3</td><td>32.3℃</td><td>57.8℃</td></tr>
<tr><td>4</td><td>U3</td><td>31.9℃</td><td>57.4℃</td></tr>
<tr><td>5</td><td>U6</td><td>32.0℃</td><td>57.8℃</td></tr>
</table></td></tr>
<tr><td>2</td><td>LOW TEMPERATURE
TURN ON TEST</td><td>TURN ON AFTER 2 HOUR</td><td>I/P : 22.5VDC/9.5VDC
O/P : 100 % LOAD
Ta=-25 ℃</td><td>TEST : OK</td></tr>
<tr><td>3</td><td>HIGH HUMIDITY
HIGH TEMPERATURE
HIGH VOLTAGE
TURN ON TEST</td><td>AFTER 12 HOURS
IN CHAMBER ON
CONTROL 50 ℃/95 %R.H
NO DAMAGE</td><td>I/P : 22.5 VDC
O/P : FULL LOAD
Ta=50 ℃
HUMIDITY= 95 %R.H</td><td>TEST : OK</td></tr>
<tr><td>4</td><td>STORAGE TEMPERATURE
TEST</td><td>-25~70℃</td><td colspan="2">1. Thermal shock Temperature : -30℃~ +75℃
2. Temperature change rate : 25℃ / MIN
3. Dwell time low and high temperature : 30 MIN/EACH
4. Total test cycle : 10 CYCLE
5. Input/output condition : STATIC</td></tr>
<tr><td>5</td><td>CAPACITOR
LIFE CYCLE</td><td colspan="2">SUPPOSE C10 IS THE MOST CRITICAL COMPONENT
(1) I/P : 22.5VDC O/P : FULL LOAD Ta=50 ℃ LIFE TIME</td><td>(1) 78793HRS</td></tr>
<tr><td>6</td><td>Ongoing Reliability Test</td><td colspan="3">I/P : 22.5VDC O/P : FULL LOAD TA=50℃
Demonstration Mean Time Between Failure : 50,000 hours</td></tr>
</table>

TEST RESULT	TESTER	REVIEW	APPROVAL
PASS	WUWQIN/ZHOUBIAO	WENF	WUWQ

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